

### **REMARKS**

Applicant has carefully reviewed and considered the Advisory Action mailed on August 30, 2007 and the references cited therewith.

Claims 1-35, 38-39, and 41 are cancelled, and as a result claims 36-37, 40 and 42 are pending.

#### **§103 Rejection of the Claims**

Claims 36, 37, 40 and 42 were rejected under 35 USC § 103(a) as being unpatentable over Otsuji (U.S. 2001/0009142 A1) in view of Rowell (U.S. 4,258,659). Applicant traverses the Examiner's rejection for failure to establish a *prima facie* case of obviousness, particularly as to amended claim 36.

The reference of Otsuji teaches away from a plant growth medium. Otsuji's excrement containing composition teaches the inclusion of antimicrobial agents for example, phenol, p-chlorophenol, sodium benzoate and potassium sorbate are disclosed. Antimicrobial agents are chemicals that kill or inhibit the growth of microbes. More specifically, chlorophenols and phenols are toxic for a wide range of microbes, as they are commonly used as antiseptics and disinfectants. Phenols and chlorophenols are also considered soil contaminants. Sodium benzoate and sorbates, such as potassium sorbate, inhibit the growth of microbes and are commonly used as antifungal agents. Thus, the agents disclosed in Otsuji kill or inhibit the growth of microbes. Many microbes, including some fungi, are necessary and desired for plant growth. For example, microbes such as nitrogen fixing bacteria are necessary for plant growth. In fact, microbes are used to convert gaseous nitrogen into forms usable by plants. Further, interactions between plants and fungi provide nutrients for plants. For instance, Arbuscular mycorrhizal fungi, which form an intricate internal symbiosis with the roots of most flowering plants, are associated with the provision of phosphorous to the plant in exchange for organic carbohydrates. See John P. Morrissey et al., *Are Microbes at the Root of a Solution to World Food Production?*, EMBO REPORTS v. 5(10), October 2004, available at: the worldwide web address [pubmedcentral.nih.gov/articlerender.fcgi?artid=1299160.com](http://pubmedcentral.nih.gov/articlerender.fcgi?artid=1299160.com).

In addition, microbes enhance stress tolerance, provide disease resistance, aid nutrient availability and uptake, and promote biodiversity for plant growth. Id. Soil microbes have a

tremendous influence on plant health and productivity. For example, microbes give plants a better supply of and access to nutrients, which contributes to plant growth. Id. Microbes also aid in nutrient uptake for plants. Further, microbes confer a degree of protection against plant diseases. For instance, various bacteria and fungi produce a range of metabolites for plants against other phytopathogenic fungi. Id. Finally, microbes exert an effect on plants called induced systemic resistance which arises when interactions with non-pathogenic bacteria confer better disease resistance on plants. This induced resistance enhances resistance of remote aerial plant parts against pathogens. Id.

Therefore one wanting to create a culture medium for growing plants would not look to Otsuji's excrement containment mat which includes antimicrobials because it is not desirable to include soil contaminants or antimicrobial agents that kill or inhibit the growth of microbes which are beneficial to plant growth in a culture medium for growing plants. As Otsuji teaches killing microbes and thus inhibiting growth of plants, it is antithetical to the purpose of Applicant's composition, "culture medium". Because microbes play such a crucial role in plant growth, as explained above, Otsuji teaches away from Applicant's recited claims.

Further, Otsuji has 31 references to the word "plant". Of the 31 there is not a single reference to growing a plant with the medium of Otsuji. Instead plant is used in conjunction with fiber or pulp to describe an ingredient of the urine adsorbent medium of Otsuji. The medium of Otsuji is made from plant pulp which is defined as plant fiber substantially freed of components other than cellulose to have high cellulose purity.

Therefore, Applicant believes that claims 36, 37, 40 and 42 are patentable over Otsuji or Rowell.

### Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (505 998 6134) to facilitate prosecution of this application.

REQUEST FOR CONTINUED EXAMINATION

Serial Number: 10/782,419

Filing Date: February 17, 2004

Title: Method of Manufacturing a Culture Medium

---

Page 5

Dkt: 30394-1120

If necessary, please charge any additional fees or credit overpayment to Deposit Account  
No. 13-4213

Respectfully submitted,



Janeen Vilven, Reg. No. 47,156

Direct line (505) 998-6134

PEACOCK MYERS, P.C.

Attorneys for Applicants

Post Office Box 26927

Albuquerque, New Mexico 87125-6927

Telephone: (505) 998-6134

Facsimile: (505) 243-2542

Customer No.: 005179